

REMARKS

Prior to this Amendment, claims 1, 2, 4, 5 and 8-21 were pending, with claims 12 and 22-36 having been withdrawn, and claims 3, 6, 7, 37 and 38 having been previously cancelled.

Claim 8 has been substantially¹ incorporated into claim 1, with claim 8 then cancelled herein, and claims 39-49 have been added.

Claim 16 has been objected to, and has been indicated to contain allowable subject matter. Original claim 16 has been rewritten herein as new claim 39. Therefore, new claim 39 should be allowable.

In view of the above, claims 1, 2, 4, 5, 9-11, 13-15, 17-21 and 39-49 are understood to be at issue herein. Of these:

- a. Claims 1, 2, 4, 5, (8), 11, 13, 15 and 17 stand rejected under 35 U.S.C. §103(a) as being obvious over Nakano *et al.* U.S. Patent No. 4,868,033 (**Nakano**) in view of either Mast U.S. Patent No. 6,501,059 (**Mast '059**) or Fichtner U.S. Patent No. 3,302,632 (**Fichtner**).
- b. Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being obvious over **Nakano** in view of either **Mast '059** or **Fichtner** and further in view of Brown U.S. Patent No. 3,219,460 (**Brown**).
- c. Claim 14 stands rejected under 35 U.S.C. §103(a) as being obvious over **Nakano** in view of either **Mast '059** or **Fichtner** and further in view of either Lafferty *et al.*

¹ Claim 8 recited a plurality of "holes", but claim 1 as amended herein recites "at least one hole". Dependent claims 9 and 10 specifically recite that there are a "plurality of holes".

U.S. Patent No. 6,102,281 (**Lafferty**) or Mast U.S. Publication No. US/2004/0238535 (**Mast Publ. '535**).

- d. Claims 18 and 19 stand rejected under 35 U.S.C. §103(a) as being obvious over **Nakano** in view of either **Mast '059** or **Fichtner** and further in view of *Minerich et al.* U.S. Patent No. 5,593,610 (**Minerich**).
- e. Claim 20 stands rejected under 35 U.S.C. §103(a) as being obvious over **Nakano** in view of either **Mast '059** or **Fichtner** and further in view of **Minerich** and still further in view of *Middleton et al.* WO Publ. No. 03/078012 (**Middleton**).
- f. Claim 21 stands rejected under 35 U.S.C. §103(a) as being obvious over **Nakano** in view of either **Mast '059** or **Fichtner** and further in view of *Tilton* U.S. Publication No. 2009/0047525 (**Tilton**).

As noted above, independent claim 1 as amended herein substantially corresponds to original claim 8, against which the combination of **Nakano**, **Mast '059** and **Fichtner** have been cited. It is respectfully submitted that this combination does not make the claimed combination obvious.

Nakano produces a laminate by laminating a film of a heat-shrinkable synthetic resin to (at least one side of) a metallic foil through a solid bonding layer. This bonding layer comprises a discontinuous layer of a synthetic resin and a layer of an adhesive. The laminate is subjected to heat shrinkage (see column 1, lines 58-68). Further, **Nakano's** use of the bonding layer comprising the discontinuous resin layer 5 and adhesive layer 6 (column 3, lines 22-23) makes the bonding layer relatively expensive, which is a significant drawback for mass production.

Moreover, **Nakano** teaches that vacant spaces within the laminate should be avoided. Nakano discloses many embodiments of laminates (10!), and all ten include a closed metallic foil 3. Also, the metallic foil is wrinkled due to the heat shrinkage (column 2, lines 12-22; column 3 lines 59-60; column 4, line 38) – Figures 15 and 16 show a heat-shrunk and wrinkled laminate 10 which is inserted between dies 11 and 12. The reason to make use of heat-shrinkage appears to be so that this manufacturing method improves the properties of the laminate, which is necessary since in use the laminate 10 is stretched between dies 11 and 12 (compare figs 15 and 16) which introduces the risk of the metal (e.g., aluminium) layer (foil) 3 being damaged. Further, if the metallic foil 3 of **Nakano** were to include holes, during heat shrinkage the resin material of layers 5 would become fluid and would "escape" via any hole which would be present in the metallic foil 3. If holes were present in **Nakano's** metallic foil 3, the barrier function of this layer (see column 1, line 54 and column 2, line 27), *which function is presented in Nakano as being essential*, would not be present. In short, it is respectfully submitted that a person skilled in the art would not even consider making holes in the metal foil 3, and that is essentially what **Nakano** teaches by so carefully teaching manufacture methodology which clearly is intended to prevent such holes.

Further, Applicant respectfully traverses the assertion (with respect to original claim 8, now substantially incorporated in claim 1) that it would have been obvious to provide a hole or holes (at least one hole in amended claim 1, "a plurality of holes" in dependent claims 9 and 10) in the metal foil 3 of **Nakano**. Holes in the metal foil layer 3 of **Nakano** would necessarily not be well defined (due to the heat-shrinkage treatment and the stretching during injection molding). Therefore, any skilled person with an

understanding of **Nakano** would recognize that changing its structure to add holes is not only not taught by **Nakano**, it is so contrary to its teachings that such a change would not work without otherwise fundamentally deviating from the teachings of **Nakano**.

Mast '059 relates to susceptor technology whereby, unlike the present invention, a susceptor layer absorbs microwave energy which causes the susceptor layer to heat up and thereby also indirectly also heat up the food product (column 1, lines 23 - 52). The shielding technology of the present invention aims at allowing a controlled amount of microwave radiation to pass the the microwave influencing layer, thus regulating microwave transmission.

Further, the susceptor layer in **Mast '059** is generated by using depositing technologies combined with selective demetallization (column 5, lines 17 - 35). From both a thickness and economical point of view, such layers are a different order of magnitude relative to the **foil** layers used in the present invention. Thus, a skilled person would not consider combining the teaching of **Mast '059** with the teaching of **Nakano** since **Mast '059** does not relate to the use of foil (but instead to deposited films) and not to the use of shielding (but instead to susceptor technology)

Fichtner discloses the use of a grid of metal wires. Sharp contouring of wire ends may cause sparking or arching in a microwave environment. Further, the use of multiple wires in a grid inherently presents a greater risk of sparking or arching than just one such wire. Moreover, the use of a grid or of some grids does not bring about the same flexibility regarding the pattern, shape, distribution, space between holes and magnitude of holes as the flexibility one has when using a foil. Thus, when multiple compartments would be used, each compartment would need its own grid – as disclosed

in **Fichtner**, grids 21, 22 each should be incorporated in the base portion 15, sandwiched between vessels 11 and 12 (column 2, lines 25 - 34).

Thus, a person skilled in the art would also not consider combining the teachings of **Fichtner** with the teaching of **Nakano** since **Nakano** explicitly aims at avoiding vacant spaces within the laminate (column 2, line 14). A person skilled in the art would understand that such vacant spaces (almost) are inevitable when including a grid in a laminate. Furthermore such a grid is totally unsuitable to be subject to a heat-shrinkage treatment as far as it would be possible at all to include a grid in a laminate. Still further, Applicant's microwave radiation-influencing layer is a single element, which thus would not present the risk of sparking or arching as **Fichtner's** multiple wire structure.

In view of the above, independent claim 1 as submitted herein as well as claims 2, 4, 5, 9-11, 13-15 and 17-21 variously depending therefrom are submitted to be allowable.

As previously noted, new claim 39 corresponds to original claim 16, rewritten in independent form. The Office Action has acknowledged that claim 16 would be allowable if rewritten in independent form. Accordingly, claim 39 is now in allowable form.

New independent claim 41 corresponds to original claim 21, rewritten in independent form, and recites, *inter alia*, that the multilayer foil is electrostatically chargeable. In addition to **Nakano** and **Mast '059** or **Fichtner** cited in combination, the Office Action has additionally cited **Tilton** as yet a third reference in combination as making this obvious. The Office Action indicates that **Tilton** (mistakenly referred to as **Lafferty** in Section 9) indicates that "all electrically insulating materials are capable of holding a static charge". However, the capability to have a certain characteristic does

not inherently mean that such a characteristic must exist. Thus, it is respectfully submitted that **Tilton** does not suggest that the characteristic be a part of **Nakano**.

New dependent claims 40, 42 and 49 further recite that the multilayer foil substantially conforms to the shape of the mould prior to positioning said foil inside the mould (see, e.g., Figs. 2B and 9 of Applicant's disclosure). This clearly distinguishes from Figures 15 and 16 of **Nakano** which, in context, is essentially a non-enabling disclosure given that (a) the laminate 10 in Figures 15 and 16 is required to follow the complex, 3-dimensional shape as indicated in Figure 16, and (b) disclosed laminate 10 has at most very limited flexibility. The wrinkled shape of the laminate 10 makes it unsuitable to be automatically inserted in any mould which is of importance for mass production.

New claims 43 and 44 depend from claims 41 and 1, respectively, and further recite that at least one hole is provided extending through one of the material layers, which one layer is an outer layer of the multilayer foil. This structure facilitates manufacture whereby the open side of the hole(s) can facilitate anchoring during molding from molding material entering into the hole(s).

New claim 45 depends from claim 1 and recites that the microwave radiation-influencing material layer is directly bonded to the at least one layer that does not influence microwave radiation without an additional layer therebetween. While direct bonding would encompass the use of glue between the layers (see, e.g., paragraphs 0022, 0026 and 0087, and claims 19 and 20, of Applicant's disclosure), it is narrower than simple "bonding" such as recited in claim 1, which could include bonding with additional layers therebetween. In any event, whether the layers are bonded (claim 1) or directly

bonded (claim 45), the structure recited in claims 1 and 45 are neither taught nor suggested by the prior art.

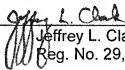
New claims 46-48 are similar to claim 45 (reciting that the microwave radiation-influencing material layer is directly bonded to the layer that does not influence microwave radiation without an additional layer therebetween), and depend from claims 39, 41 and 44, respectively. Thus, these claims are also allowable for the same reasons as claim 45, as well as the reasons discussed with respect to their base claims.

In view of the above, claims 1, 2, 4, 5, 9-11, 13-15, 17-21 and 39-49 are submitted to be allowable. Early notification to that effect is respectfully requested.

Respectfully submitted,

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